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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,465	05/03/2007	Malcolm R. Mackley	DUMMETT-051XX	4926

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EXAMINER	
WOLLSCHLAGER, JEFFREY MICHAEL	
ART UNIT	PAPER NUMBER
1742	

MAIL DATE	DELIVERY MODE
11/16/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,465	MACKLEY ET AL.	
	Examiner	Art Unit	
	JEFFREY WOLLSCHLAGER	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-38* is/are pending in the application.

4a) Of the above claim(s) *15-28 and 33-38* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group II, claims 29-32, in the reply filed on September 27, 2010 is acknowledged. Claims 15-28 and 33-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 29-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 29 recites the needles "allow fluid to be drawn….to be entrained". The limiting effect of the recitation is unclear. The limiting effect of "drawn" is unclear. It is unclear whether the use of the word is intended to include a variety of means for supplying the fluid, such as injecting or supplying pressurized fluids, or whether the fluid is intended to be limited to a fluid source at atmospheric pressure or less. For example, paragraph [0014] of the published application appears to suggest the scope of the language is intended to include pressurized fluid (i.e. injected) whereas the language of the claim seems to possibly imply the disclosed air at atmospheric pressure embodiment. Similarly, the limiting effect of "entrained" is unclear in view of paragraph [0014]. Appropriate correction and/or clarification is required. It should be noted that the claims are interpreted in view of the specification, but limitations from the specification are not incorporated into the claims during examination. Thus, should applicant intend to exclude the use of injected fluids, this should be made clear.

Claim 31 recites "laminating two or more films together". It is unclear how the recitation complements, supplements or is integrated with the scope of claim 29. For example, it is unclear whether something formed in claim 29 is laminated to two or more films or whether claim 31 is substantially disconnected from the process of claim 29. Appropriate correction and/or clarification is required. Claims 30 and 32 are rejected as dependent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by Zertuche (US 4,655,987).

Regarding claim 29, Zertuche et al. teach the claimed process of producing an extrudate (e.g. a tubular article) comprising a plurality of capillary channels (e.g. multiple inner lengthwise subdivisions) comprising extruding the shape in a continuous manner through a die having a nozzle which contains core partitions/needles 16a 16b 16c 16d (col. 1, lines 3—59; col. 2, lines 15-57; Figure 1; Figure 5). The partitions/needles have internal conduits for the introduction of atmospheric pressure air (claim 1). It is submitted that inherently the extruder has some structure or means for introducing the extrudable material which is readable on the claimed inlet.

Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by Delves-Broughton (US 3,771,934).

Regarding claim 29, Delves-Broughton teaches the claimed process of producing an extruded cable having a plurality of longitudinal passageways (Figure 1a; Figure 3a) comprising extruding material through the die of an extrusion tool (e.g. Figure 2a; 2b; Figure 4) wherein atmospheric air is allowed to flow through vent tubes/needles (13) in the Figure 2a embodiment or vent tubes/needles (20) in the Figure 4 embodiment to produce the desired passageway (col. 1, line 29-57; col. 2, lines 37-62; col. 3, lines 20-52). It is submitted that inherently the extruder has some structure or means for introducing the extrudable material which is readable on the claimed inlet.

Claim 29 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ho et al. (US 5,658,644).

Regarding claim 29, Ho et al. teach the claimed process of producing a light weight board having a plurality of longitudinally extending passageways (figure 1) comprising extruding the material through a modified die head 3 comprising a plurality of mandrels/needles (16) each having a longitudinal bore (17) to provide air flow through the passageway during extrusion (col. 3, lines 16-35). In one interpretation of the claim it is submitted that the disclosure at col. 3, lines 30-34 anticipates the requirement of allowing air to be drawn into the needles and thus the claim is anticipated. Alternatively, the disclosure at col. 3, lines 30-34 suggests and implies one having ordinary skill would have readily determined the pressure of the air required to achieve and maintain the desired hollow configuration through routine experimentation. See the 35 USC 112 second paragraph rejection above.

Claim 29 and 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wooley (US 3,778,495).

Regarding claims 29 and 30, Wooley teach a process for producing a polymeric composition comprising a plurality of channels (16) (Figure 3) comprising extruding the resin through an extruder having a hopper (23) and through a die containing a mandrel with a plurality of mandrel tubes (30) which form the channels (16) by permitting air or other gaseous material to be supplied (Figure 5; col. 7, lines 26-col. 8, line 15). The extrudate is then drawn by puller 35.). In one interpretation of the claim it is submitted that the disclosure at col. 7, lines 60-64 anticipates the requirement of allowing air to be drawn into the needles and thus the claim is anticipated. Alternatively, the disclosure at col. 7, lines 60-64 suggests and implies one having ordinary skill would have readily determined the pressure of the air required to achieve and maintain the desired hollow configuration through routine experimentation and suggests a substantially overlapping range with the claimed range (e.g. the range disclosed by less than 1-2 psig includes atmospheric pressure). See the 35 USC 112 second paragraph rejection above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zertuche (US 4,655,987), as applied to claim 29 above, and further in view of Herrington (US 7,550,102).

As to claim 30, Zertuche teaches the method of claim 29 as set forth above. Zertuche does not teach drawing down the extrudate with draw down equipment. However, Herrington discloses that in the art of making tubular materials draw down equipment is known to pull the extrudate away from the die (Figure 6; col. 15, lines 11-25; Figure 1).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have combined the teaching of Zertuche and Herrington and to have employed the pulling device (e.g. Figure 6 or Figure 1) of Herrington in the method of Zertuche for the purpose of effectively pulling the extrudate away from the die and for further processing (Figure 6) or for the purpose of providing a helical shape to the extrudate (Figure 1; Figure 15).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Delves-Broughton (US 3,771,934), as applied to claim 29 above, and further in view of Herrington (US 7,550,102).

As to claim 30, Delves-Broughton teaches the method of claim 29 as set forth above. Delves-Broughton does not teach drawing down the extrudate with draw down equipment. However, Herrington discloses that in the art of making tubular materials draw down equipment is known to pull the extrudate away from the die (Figure 6; col. 15, lines 11-25; Figure 1).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have combined the teaching of Delves-Broughton and

Herrington and to have employed the pulling device (Figure 6 or Figure 1) of Herrington in the method of Delves-Broughton for the purpose of effectively pulling the extrudate away from the die and for further processing (Figure 6) or for the purpose of providing a helical shape to the extrudate (Figure 1; Figure 15).

Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being obvious over Ho et al. (US 5,658,644), as applied to claim 29 above, and further in view of Vetter (US 4,707,393).

As to claims 31 and 32, Ho et al. teach and suggest the method of claim 29 as set forth above. Ho et al. do not teach laminating the board with two additional layers. However. Vetter teaches a method of producing a hollow board wherein two additional layers are coextruded/laminated with heat and pressure to achieve a multi-layered article (Figure; col. 2, lines 18-67; col. 3, lines 67-col. 4, line 9).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Ho et al. and to have provided additional layers, as suggested by Vetter, for the purpose of providing a structure well suited for additional applications as is routinely practiced in the art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY WOLLSCHLAGER whose telephone number is (571)272-8937. The examiner can normally be reached on Monday - Thursday 6:45 - 4:15, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Wollschlager/
Primary Examiner
Art Unit 1742

November 15, 2010